

BPA Infrastructure Projects Energization Dates

G - 1 Puget Sound Area Add.	Dec-03
G - 2 N. of Hanford/N. John Day	Oct-04
G - 3 West of McNary ON HOLD	Oct-05
G - 4 Starbuck Gen. - ON HOLD	Oct-07
G - 5 Lo Mo & MCN Area Gen (Phase II) ON HOLD	Oct-04
G - 6 Cross Cascade North	Nov-03
G - 7 Celilo Modernization	Jun-04
G - 8 I-5 Corridor Gen. Additions	Oct-06
G - 9 Spokane/W. Montana Gen Add.	Oct-04
G - 10 Portland Area Additions	Oct-03
G - 11 Puget Sound Additions (Ph. 2)	Oct-05
G - 12 Olympic Peninsula Add. (Ph. II)	Oct-05
G - 13 I-5 Corridor Generations Add. ON HOLD	Sep-07
G - 14 N. John Day/Portland Rein. Ph. I	Oct-07
G - 15 W. of Noxon Rein. Phase I	Oct-06
G - 16 Lo Mo & MCN Area Gen.	Oct-06
G - 17 W. Spokane/Lewiston Rein. Ph II	Oct-07
G - 18 Pacific NW-Idaho (Phase I)	Oct-07
G - 19 Pacific NW-Idaho (Phase II)	Oct-05
G - 20 W. of Noxon Rein. (Phase II)	Oct-06

Note: Dates are subject to change.

Projects G-1 through G-9 Key Drivers

	Critical Season ¹		Time of Day		Type of Problem			Drivers		
	Winter	Summer	On-Peak	Off-Peak	Thermal	Voltage Stability	Transient Stability	Load Service	New Gen	Transfers
G1 Kangley - Echo Lake 500 kV line	✓		✓		✓	✓		✓		✓
G2 Schultz - Black Rock 500 kV line		✓	✓		✓	✓	✓		✓	✓
G3 McNary - John Day 500 kV line		✓	✓	✓	✓	✓	✓		✓	✓
G4 Lo Monumental - Starbuck 500 kV line ²	✓	✓	✓	✓	✓	✓	✓		✓	
G5 Smiths Harbor - McNary 500 kV line ²	✓	✓	✓	✓	✓	✓	✓		✓	
G6 Schultz series capacitors	✓		✓			✓		✓		✓
G7 Celilo Modernization	✓	✓	✓	✓						✓
G8 Monroe - Echo Lake 500 kV line ³	✓	✓	✓		✓			✓	✓	✓
G9 Bell - Coulee 500 kV line ³		✓ ✓	✓	✓	✓		✓			✓ ✓

Notes

- Typically, constraints on the BPA system are driven by winter and summer conditions. Problems during Spring are generally similar to Summer.
- For projects G4 and G5, the identified problems would result if the new generation was tapped into existing lines and plant output was not curtailed during heavy transfers.
- Project G8 has different drivers in winter and summer, while Project G9 has different system problems for on-peak and off-peak.

Projects G-10 through G-20 Key Drivers

	Project	Drivers		
		Load Service	New Gen	Transfers
G10	Pearl Transformer	✓		
G11	South Seattle Transformer	✓		
G12	Shelton Transformer and line addition	✓		
G13	Paul - Troutdale 500 kV line		✓	✓
G14	Hanford - Ostrander loop-in	✓		
G15	Libby - Bonners Ferry rebuild	✓		✓
G16	McNary tap to Ashe - Marion 500 kV line		✓	
G17	Little Goose - Starbuck 500 kV line			✓
G18	Hatwai - Lolo 230 kV line			✓
G19	McNary - Brownlee 230 kV line	✓		✓
G20	Libby - Bell 230 kV line			✓